Amendments to the Claims

For the Examiner's convenience, this Amendment & Request for Reconsideration includes the text of all claims under examination.

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously presented): A drive mechanism for driving a movable portion with respect to a stationary portion, comprising a connecting member that connects the stationary portion and the movable portion to each other, the connecting member having at least one of a monolithic planar 3-joint link mechanism and a monolithic planar 4-joint link mechanism.

2. (Previously presented): A drive mechanism according to Claim 1, further comprising a deformation member provided at least one of: between the stationary portion and the at least one of the monolithic planar 3-joint link mechanism and the monolithic planar 4-joint link mechanism; and between the movable portion and the at least one of the monolithic planar 3-joint link mechanism and the monolithic planar 4-joint link mechanism, the deformation member being capable of deforming with respect to a first direction and being a rigid body with respect to a second direction orthogonal to the first direction.

3. (Previously presented): A drive mechanism according to Claim 2, wherein the deformation member is an elastic member having one degree of freedom and capable of deforming in a rotation direction thereof.

4. (Previously presented): A drive mechanism according to Claim 1, further comprising a deformation member provided at least one of: between the stationary portion and the at least one of the monolithic planar 3-joint link mechanism and the monolithic planar 4-joint link mechanism; and between the movable portion and the at least one of the monolithic planar 3-joint link mechanism and the monolithic planar 4-joint link mechanism, the deformation member being capable of deforming with respect to a first direction and being capable of deforming also with respect to a second direction orthogonal to the first direction.

5. (Previously presented): A drive mechanism according to Claim 4, wherein the deformation member is an elastic member having two degrees of freedom and capable of deforming in a rotation direction thereof.

6. (Previously presented): A drive mechanism according to Claim 1,

wherein the monolithic planar 3-joint link mechanism has a first input link, a first connection link, a second connection link, a second input link, a first joint arranged between the first input link and the first connection link, a second joint arranged between the first connection link and the second connection link, and a third joint arranged between the second connection link and the second input link, and

wherein the drive mechanism comprises an input element for imparting a displacement to at least one of the first input link and the second input link, and controls deformation of an output portion provided in one of the first connection link and the second connection link by imparting the displacement to the at least one of the first input link and the second input link.

7. (Previously presented): A drive mechanism according to Claim 6, wherein a direction of the displacement imparted to the at least one of the first input link and the second input link is parallel to a plane defined by the first joint, the second joint, and the third joint.

8. (Previously presented): A drive mechanism according to Claim 6, wherein a direction of the displacement imparted to the at least one of the first input link and the second input link is substantially parallel to a straight line connecting between the first joint and the third joint.

9. (Previously presented): A drive mechanism according to Claim 6, wherein the first joint, the second joint, and the third joint each comprise an elastic hinge.

10. (Previously presented): A drive mechanism according to Claim 6, wherein the input element has any one of a fluid sealing means, a linear motor, and a feed screw, the fluid sealing means being one of a fluid cylinder, a piezoelectric element, and a bellows.

11. (Previously presented): A drive mechanism according to Claim 1, wherein the monolithic planar 4-joint link mechanism has a first input link, a first connection link, an output link, a second connection link, a second input link, a first joint arranged between the first input link and the first connection link, a second joint arranged between the first connection link and the output link, a third joint arranged between the output link and the second connection link, and a fourth joint arranged between the second connection link and the second input link, and

wherein the drive mechanism comprises an input element for imparting a displacement to at least one of the first input link and the second input link, and controls displacement of an

output portion provided in the output link by imparting the displacement to the at least one of the first input link and the second input link.

12. (Previously presented): A drive mechanism according to Claim 11, wherein a direction of the displacement imparted to the at least one of the first input link and the second input link is substantially parallel to a plane defined by the first joint, the second joint, the third joint, and the fourth joint.

13. (Previously presented): A drive mechanism according to Claim 11, wherein a direction of the displacement imparted to the at least one of the first input link and the second input link is substantially parallel to a straight line connecting between the first joint and the fourth joint.

14. (Previously presented): A drive mechanism according to Claim 11, wherein the first joint, the second joint, the third joint, and the fourth joint each comprise an elastic hinge.

15. (Previously presented): A drive mechanism according to Claim 11, wherein the input element has any one of a fluid sealing means, a linear motor, and a feed screw, the fluid sealing means being one of a fluid cylinder, a piezoelectric element, and a bellows.

16. (Previously presented): A drive mechanism according to Claim 1,

wherein at least three of the connecting members are provided between the stationary portion and the movable portion, and

wherein the drive mechanism performs positional control on the movable portion with respect to the stationary portion in 6 axis directions by controlling the at least three the connecting members.

17. (Previously presented): A drive mechanism according to Claim 16, further comprising a sensor that measures a relative position of the movable portion with respect to the stationary portion in the 6 axis directions,

wherein the drive mechanism performs the positional control on the movable portion with respect to the stationary portion by using an output value from the sensor.

18. (Currently amended): An exposure device comprising:

an optical system having at least one optical element for guiding light from a light source to an object to be subjected to exposure; ~~and~~

~~the drive mechanism according to claim 1,~~ a drive mechanism for driving a movable portion with respect to a stationary portion, comprising a connecting member that connects the stationary portion and the movable portion to each other, the connecting member having at least one of a monolithic planar 3-joint link mechanism and a monolithic planar 4-joint link mechanism; and

wherein the at least one optical element is at least one of an optical element supported by the movable portion, an optical element fixed substantially integrally to the movable portion and an optical element that is the movable portion.

19. (Currently amended): A device manufacturing method comprising the steps of:

performing exposure on the object to be subjected to exposure by using ~~the exposure device according to claim 18;~~ an exposure device comprising an optical system having at least one optical element for guiding light from a light source to an object to be subjected to exposure, and having a drive mechanism for driving a movable portion with respect to a stationary portion, comprising a connecting member that connects the stationary portion and the movable portion to each other, the connecting member having at least one of a monolithic planar 3-joint link mechanism and a monolithic planar 4-joint link mechanism; wherein the at least one optical element is at least one of an optical element supported by the movable portion, an optical element fixed substantially integrally to the movable portion and an optical element that is the movable portion; and

developing the object that has been subjected to the exposure.

20. (Currently Amended): An optical equipment comprising:

an optical system having at least one optical element for guiding light; and

~~the drive mechanism according to claim 1,~~ a drive mechanism for driving a movable portion with respect to a stationary portion, comprising a connecting member that connects the stationary portion and the movable portion to each other, the connecting member having at least one of a monolithic planar 3-joint link mechanism and a monolithic planar 4-joint link mechanism; and

wherein the at least one optical element is at least one of an optical element supported by the movable portion, an optical element fixed substantially integrally to the movable portion and an optical element that is the movable portion.

21. (New): A drive mechanism according to Claim 6,

wherein said input element has at least two linear actuators.

22. (New): A drive mechanism according to Claim 11,

wherein said input element has at least two linear actuators.

23. (New): A drive mechanism according to Claim 17,

wherein said sensor has at least six sensors.

24. (New): A drive mechanism for driving a movable portion with respect to a stationary portion, comprising a connecting member that connects the stationary portion and the movable portion to each other, the connecting member having at least one of a monolithic plate-like 3-joint link mechanism and a monolithic plate-like 4-joint link mechanism.

25. (New): A drive apparatus for driving an optical element with respect to a stationary portion, comprising at least three connecting members that connect the optical element and the stationary portion to each other, the connecting member having at least two linear actuators and a monolithic plate-like link mechanism which is connected to the linear actuators and transmits a displacement caused by the linear actuators to the optical element,

wherein the link mechanism has at least three joints and positions the optical element in 6 axis directions by controlling the linear actuators.